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United States
Department of
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Soil
Conservation
Service

Boise,
Idaho



(copy)

Idaho

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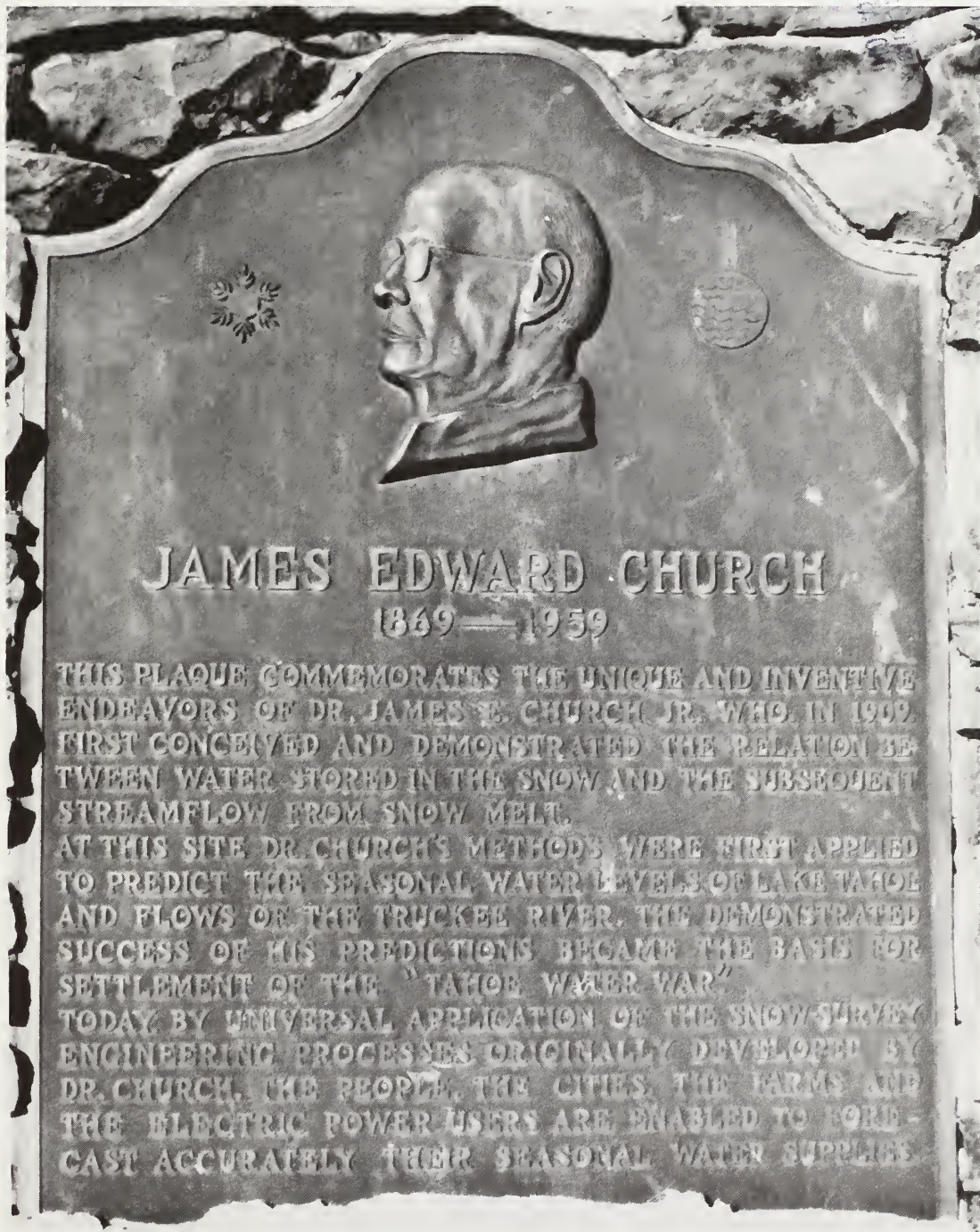
Water Supply Outlook

January 1, 1989

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JAMES EDWARD CHURCH

1869 — 1959

THIS PLAQUE COMMEMORATES THE UNIQUE AND INVENTIVE ENDEAVORS OF DR. JAMES E. CHURCH JR. WHO, IN 1909, FIRST CONCEIVED AND DEMONSTRATED THE RELATION BETWEEN WATER STORED IN THE SNOW AND THE SUBSEQUENT STREAMFLOW FROM SNOW MELT.

AT THIS SITE DR. CHURCH'S METHODS WERE FIRST APPLIED TO PREDICT THE SEASONAL WATER LEVELS OF LAKE TAHOE AND FLOWS OF THE TRUCKEE RIVER. THE DEMONSTRATED SUCCESS OF HIS PREDICTIONS BECAME THE BASIS FOR SETTLEMENT OF THE "TAHOE WATER WAR".

TODAY BY UNIVERSAL APPLICATION OF THE SNOW SURVEY ENGINEERING PROCESSES ORIGINALLY DEVELOPED BY DR. CHURCH, THE PEOPLE, THE CITIES, THE FARMS AND THE ELECTRIC POWER USERS ARE ENABLED TO FORECAST ACCURATELY THEIR SEASONAL WATER SUPPLIES.

Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soil Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

An error is associated with each forecast, and this error decreases as the season progresses and more data becomes available. To express the range of error that can be expected, "most probable" forecasts are issued along with a range representing a "reasonable minimum" and a "reasonable maximum". Actual streamflow can be expected to fall within this range in eight out of ten years. Additionally two specific scenarios are provided based on the assumption that subsequent precipitation will be "wet", above average, or "dry", below average.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola Ave., Suite 200, Phoenix, AZ 85012
Colorado	2490 West 26th Ave., Building A, 3rd floor, Denver, CO 80211
Idaho	3244 Elder Street, Room 124, Boise, ID 83705
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Room 219, Reno, NV 89502
New Mexico	517 Gold Ave. S.W., Room 3301, Albuquerque, NM 87102-3157
Oregon	1220 Southwest 3rd Ave., Room 1640, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	W. 920 Riverside, Room 360, Spokane, WA 99201-1080
Wyoming	Federal Building, 100 "B" Street, Room 3124, Casper, WY 82601

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR 97209-3489.

Water supply reports published by other agencies:

California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A3V1; Alberta, Environment Technical Services Division, 9820 106th St., Edmonton, Alberta T5K 2J6.

Idaho Water Supply Outlook

and

Federal — State — Private Cooperative Snow Surveys

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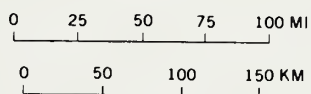
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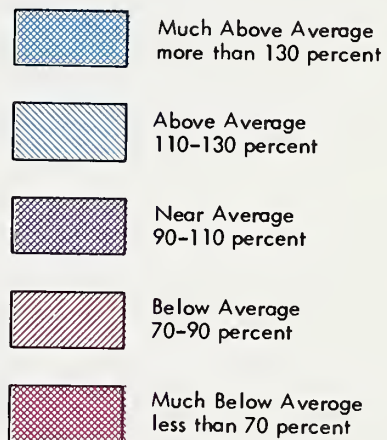
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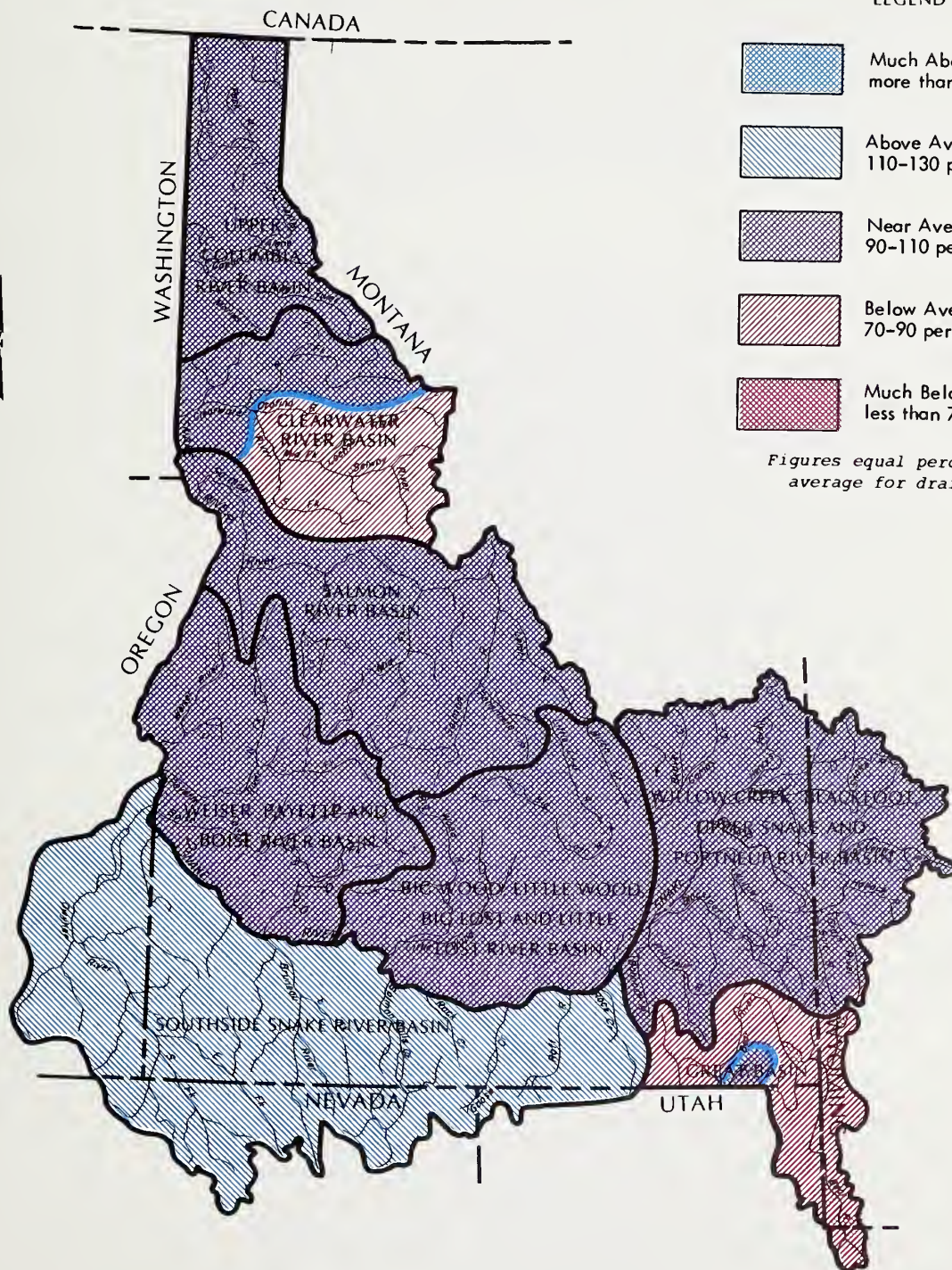
STREAMFLOW PROSPECTS IDAHO



LEGEND



*Figures equal percent of
average for drainage.*



GENERAL OUTLOOK

SUMMARY:

GREAT NEWS FOR 1989... IDAHO'S MOUNTAIN SNOWPACK IS NEAR NORMAL FOR THE FIRST TIME IN THREE YEARS, ESPECIALLY IN THE DROUGHT RAVAGED CENTRAL AND SOUTHERN PORTIONS OF THE STATE. CONSEQUENTLY, MOST STREAMFLOW FORECASTS ARE FOR NEAR NORMAL RUNOFF CONDITIONS. IT IS TOO EARLY TO COMPLETELY CALL THE DROUGHT OFF, BUT WITH NEARLY HALF OF THE SNOW ACCUMULATION SEASON BEHIND US, WATER USERS CAN BE CAUTIOUSLY OPTIMISTIC ABOUT 1989 WATER SUPPLY CONDITIONS.

SNOWPACK:

The first snow surveys of the 1989 season show Idaho's winter snow accumulation to be off to the best start in over three years. North Idaho snowpacks, however, remain below normal for the fourth consecutive year, ranging from 70% of average on the Kootenai basin to 91% on the Clearwater River. In the central part of the state, from the Weiser drainage eastward to the Little Lost River, snowpacks are near normal ranging from 90 to 109% of average on the major river basins. In eastern Idaho and western Wyoming, snowpacks vary widely, ranging from 74% of normal on the Salt River drainage to 153% on the Beaver-Camas Creek basin near Dubois with most basins between 85 and 135% of average. In the Great Basin area of southeastern Idaho, snowpacks are near to slightly below normal, ranging from 80 to 100% of average. Basins on the south side of the Snake report the highest snowpack conditions in the state, ranging from 136% of normal in the Salmon Falls Creek basin to 169% in the Owyhee basin. By January 1, only about 40% of the winter's accumulation season is behind us. To ensure near normal snowpack conditions at the peak of the snow accumulation season (early to mid-April), most basins will require normal or above normal snowfall for the remainder of the winter.

PRECIPITATION:

The 1989 water year began on a very dry note as October brought very little precipitation. Many stations in southern and central Idaho reported no measurable rainfall during the month. The northern half of the state received a little more rainfall but monthly reports were well below normal; only four locations reported more than half of October's normal. The entire state averaged only 34% of normal

for the month of October. November saw a marked improvement in precipitation across Idaho: the statewide average for the month was 187% of normal, with Boise setting an all time record of 3.36 inches. Southern Idaho received the heaviest precipitation with Aberdeen reporting 344% of normal for the month of November. Grangeville reported 94% for the month while all other stations reported above average precipitation amounts, ranging from 125 to 170 percent. December began as another dry month. During the last half of the month several storms moved across the state but only managed to produce a statewide average of 63% of normal. December precipitation was uniformly distributed across the state except for a band from Fairfield to Pocatello, with Pocatello receiving 124% of average.

RESERVOIRS:

Two consecutive years of below normal snowpack coupled with very dry conditions this past summer left most reservoirs empty or nearly empty at the end of the 1988 irrigation season. Heavy precipitation in November resulted in improved streamflow volumes and allowed most reservoir operators to begin refilling their systems for the 1989 season. Reservoir conditions, however, remain very low throughout the state with only Brownlee Reservoir reporting above average storage at 108% of normal. Twenty-seven key reservoirs across the state currently report a combined storage of 71% of average and only 47% of capacity. Reservoirs with the lowest storage volumes are generally found in the south central and southwestern parts of the state where many reservoirs are about half of average storage and about one-third of capacity.

STREAMFLOW:

As a result of the encouraging January 1 snow surveys, streamflow forecasts are much improved over those of the past two years. The most promising portion of the state is southwestern Idaho, where spring and summer runoff volumes range from 113 to 124% of normal. Streamflow forecasts in central Idaho are near average, ranging from 90% for the Salmon at White Bird to 103% for the South and Middle Forks of the Boise River. On the other end of the scale, north Idaho and the Great Basin are areas of possible concern due to below average streamflow forecasts. All forecasts assume normal precipitation for the remainder of the accumulation season. With over half of the winter yet to come, near or above normal snowfall will be needed to turn these predictions into reality.

OTHER INFORMATION

SOIL MOISTURE:

Soil moisture conditions are below to well below normal throughout Idaho. In the southern half of the state, mountain soils have received very little moisture since last spring and are very dry. Most mountain precipitation stations in southern Idaho reported less than 0.2 inches of rain in October. Normal amounts for these stations are generally 2.0 - 4.0 inches. The heavy precipitation received in November fell mostly in the form of snow in the mountainous areas and added little moisture to the soil profile. Soil moisture conditions in the northern half of the state are somewhat better as a result of the heavy rains received during the last half of October but remain drier than normal in the mountainous areas. A significant portion of snowmelt is expected to be absorbed by the dry soils - particularly in southern Idaho.

HYDROLOGIC EFFECT OF 1988 FIRES:

The SCS has developed preliminary estimates of the increased spring runoff expected to occur as a result of fires during the summer of 1988. Current estimates will be revised as more site information is assembled and procedures are refined.

Based on currently available information, the following increases are projected for the affected forecast points included in this report:

LOCATION	% DRAINAGE burned*	% INCREASED RUNOFF apr-jul	% INCREASED RUNOFF apr-sep
Snake nr Moran	44	11	13

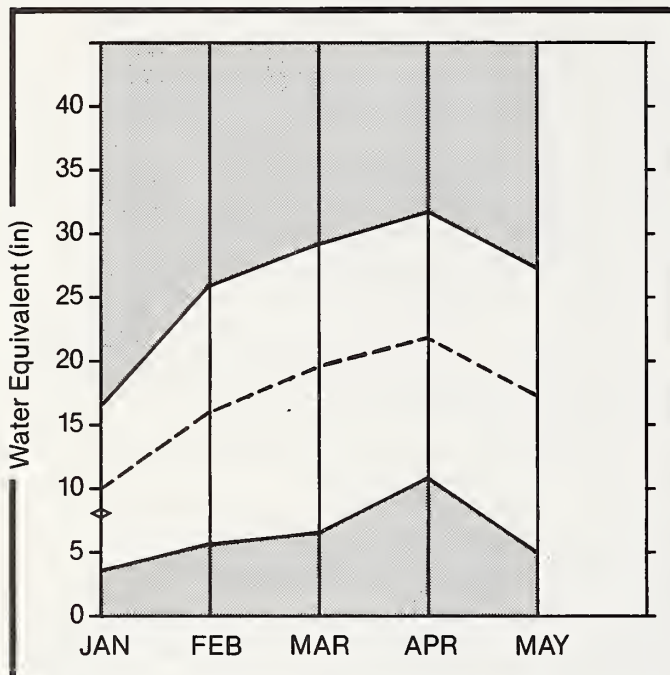
Increases are included in the forecast values and in all appropriate downstream forecasts.

CLEARWATER AND SALMON NOW REPORTED SEPARATELY:





Idaho's 1989 Water Supply Outlook Report contains a change from previous years: the Clearwater and the Salmon River basins are now reported separately. This change should provide more meaningful information to the users of this report due to the differences in hydrology and climatology of these basins.

Upper Columbia Basin

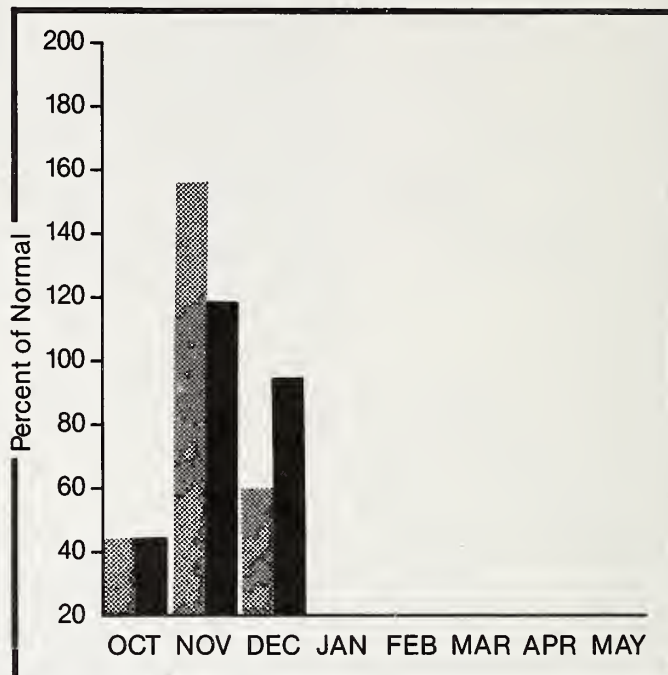
Mountain snowpack* (inches)





*Based on selected stations

Maximum  Average 
Minimum  Current 

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snow surveys taken near January 1 show snowpack conditions in the basin are much better than those reported at this time last year. However, the mountain snowpack remains below normal throughout the basin for the fourth consecutive year. Currently, snowpacks range from 70% of average on the Kootenai basin to 84% on the Priest, Spokane, and Pend Oreille basins. Reservoir storage is also below normal, ranging from 57% of average in Coeur d'Alene Lake to 82% in Priest Lake. April - September streamflow volumes are forecast to range from 86 to 98% of average.

For more information contact your local Soil Conservation Service office.

UPPER COLUMBIA RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	HIST PROBABLE (1000AF)	HIST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
KOOTENAI at Leonis (2)	APR-SEP	8250	98			11000	5630	8441
	APR-JUL	7170	98			9520	4890	7340
	APR-JUN	5780	98			7670	3890	5899
CLARK FORK at Whitehorse Rapids (2)	APR-SEP	11500	86			16700	6150	13370
	APR-JUL	10400	86			15300	5540	12150
	APR-JUN	8910	86			13100	4660	10360
PEND OREILLE LAKE inflow (2)	APR-SEP	12900	86			18700	7080	14930
	APR-JUL	11800	86			17100	5480	13650
	APR-JUN	10100	86			14800	5620	11780
PRIEST nr Priest River (2)	APR-SEP	830	93			1150	510	893
	APR-JUL	780	93			1080	480	838
COEUR D'ALENE at Enaville	APR-SEP	745	90			1160	330	930
	APR-JUL	710	90			1100	315	789
SPOKANE nr Post Falls (2)	APR-SEP	2530	90	2870	2190	3970	1090	2820
	APR-JUL	2440	90	2770	2110	3830	1050	2723
ST. JOE at Calder	APR-SEP	1170	91	1430	925	1590	760	1281
	APR-JUL	1350	111	1590	1100	1500	720	1211

RESERVOIR STORAGE

(1000AF)

WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			LAST YR.	AVERAGE
HUNGRY HORSE	3451.0	1631.0	2039.0	2649.0	Kootenai ab Bonners Ferry	26	129	70
FLATHEAD LAKE	1791.0	887.0	929.0	1340.0	Pend Oreille River	122	152	84
PEND OREILLE	1561.2	560.4	544.7	744.9	Clark Fork River	85	138	78
NOXON RAPIDS	335.0	318.4	320.5	318.1	Priest River	5	118	84
COEUR D'ALENE	291.2	118.2	110.0	207.7	Rathdrum Creek	0	0	0
PRIEST LAKE	97.7	28.8	32.8	35.2	Hayden Lake	0	0	0
					Coeur d'Alene River	8	153	74
					St. Joe River	8	174	90
					Spokane River	16	166	84
					Palouse River	0	0	0

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.

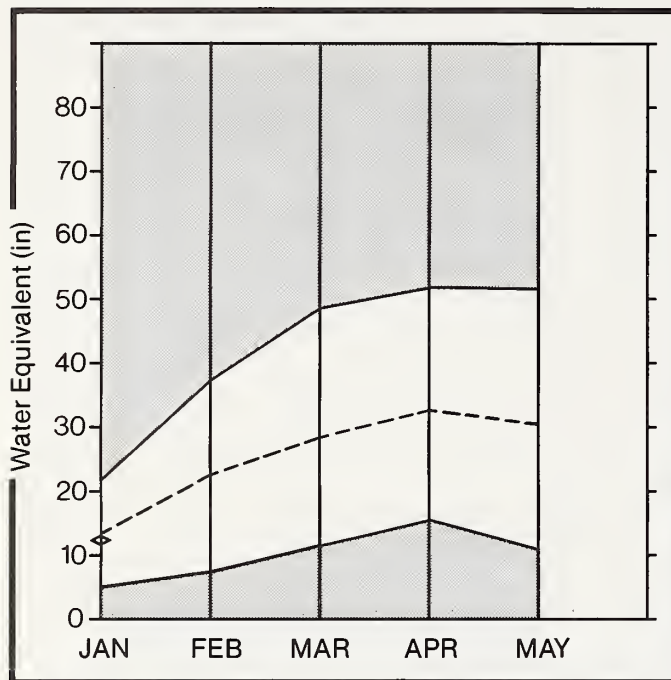
REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

(1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

(2) - Corrected for upstream diversions or changes in reservoir storage.

Clearwater River Basin

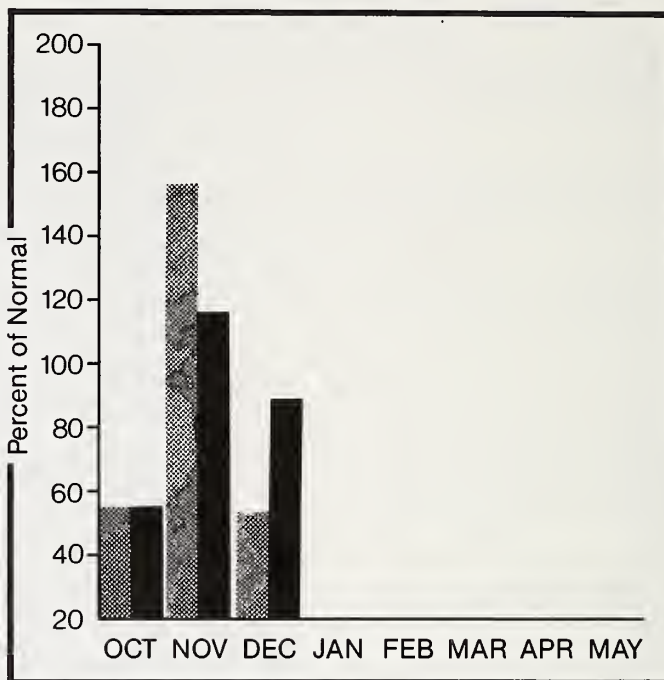
Mountain snowpack* (inches)





*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

The January 1 snow surveys show snowpack conditions on the Clearwater basin to be much better than those reported at this time last year, but remain below average over the entire basin. Snowpack figures currently range from 84% of average on the Selway to 91% on the Lochsa drainage. Carryover storage in Dworshak Reservoir is slightly below normal for January 1 at 92% of average and 64% of capacity. April - September streamflows are forecast to be slightly below normal ranging from 89 to 98% of average.

For more information contact your local Soil Conservation Service office.

CLEARWATER RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
DWORSHAK RESERVOIR inflow	APR-SEP	2950	98			4270	1630	3010
	APR-JUL	2770	98			4010	1530	2822
CLEARWATER at Orofino	APR-SEP	4590	89			6910	2270	5163
	APR-JUL	4350	89			6550	2150	4989
CLEARWATER at Spalding	APR-SEP	7940	95			11900	4000	8378
	APR-JUL	7510	95			11200	3790	7916

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **	THIS YEAR	LAST YEAR	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE
DWORSHAK	3467.8	2234.6	2011.5	2431.0	North Fork Clearwater	13	193 90
					Lochsa River	4	143 91
					Salway River	4	148 84
					Clearwater River	18	174 91

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.

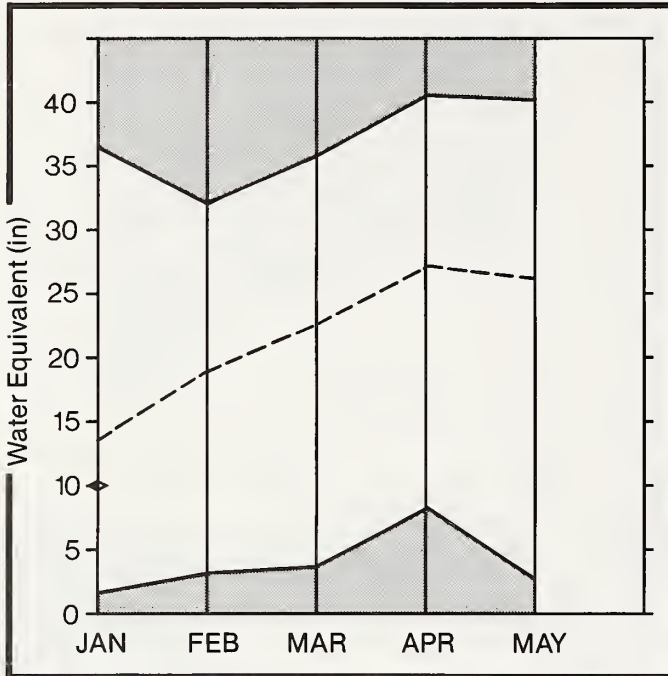
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
(2) - Corrected for upstream diversions or changes in reservoir storage.

Salmon River Basin

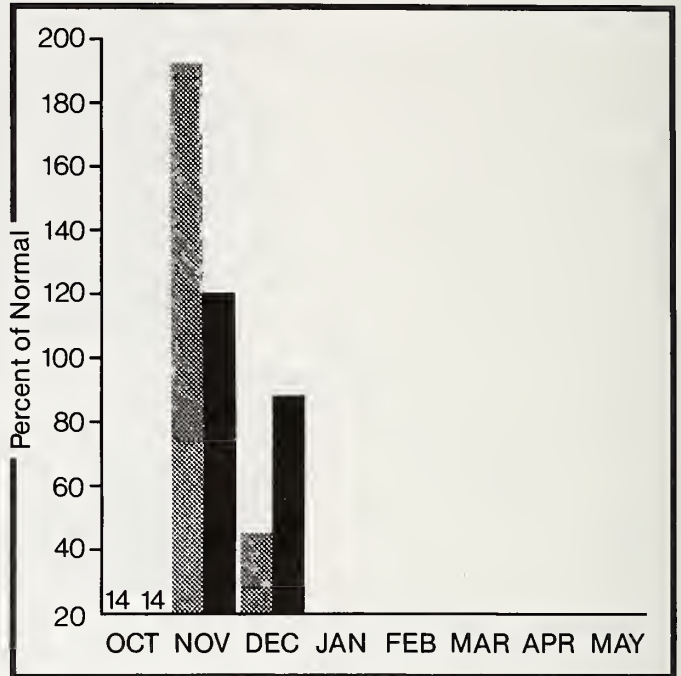
Mountain snowpack* (inches)





*Based on selected stations

Maximum  Average 
 Minimum  Current 

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snowpack conditions on the Salmon basin are slightly below normal for January 1 but are well above those reported on this date last year. Currently, snowpacks range from 78% of average on the Lemhi drainage to 85% on the Salmon basin. April - September streamflow volumes are forecast to range from 90 to 92% of normal. Soil profiles, particularly in the higher elevations, are very dry and are expected to absorb more than normal amounts of water when the spring melt begins. Near or above normal precipitation patterns over the remainder of the season should provide good flows for white water boating and other uses this spring and summer.

For more information contact your local Soil Conservation Service office.

SALMON RIVER BASIN

STREAMFLOW FORECASTS

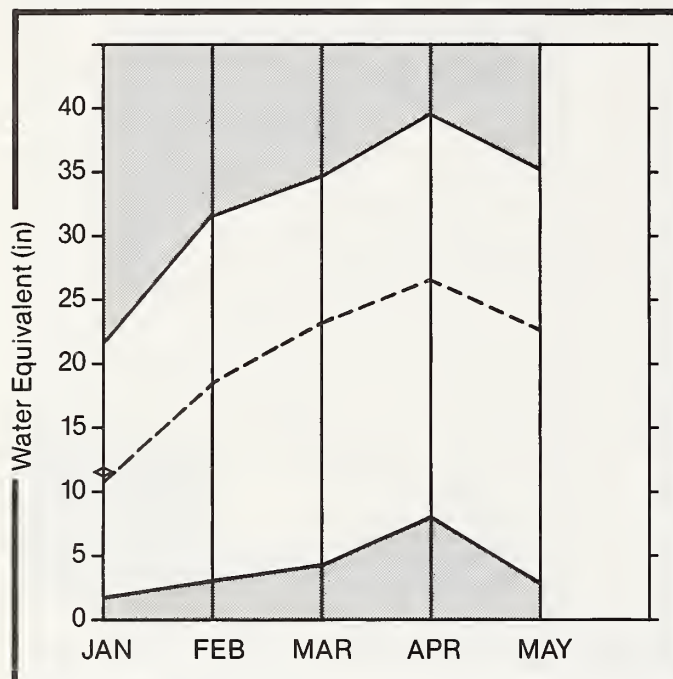
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
SALMON at Salmon	APR-SEP	990	92			1510	485	1077
	APR-JUL	845	92			1290	415	919
SALMON at White Bird	APR-SEP	6300	90			8890	3780	7007
	APR-JUL	5690	90			8030	3350	6322

RESERVOIR STORAGE		(1000AF)		WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE	USEABLE STORAGE	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.			LAST YR.	AVERAGE
				Salmon River ab Salmon	7	132	83
				Lemhi River	2	112	78
				Salmon River Total	22	154	85





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Weiser, Payette, and Boise River Basin

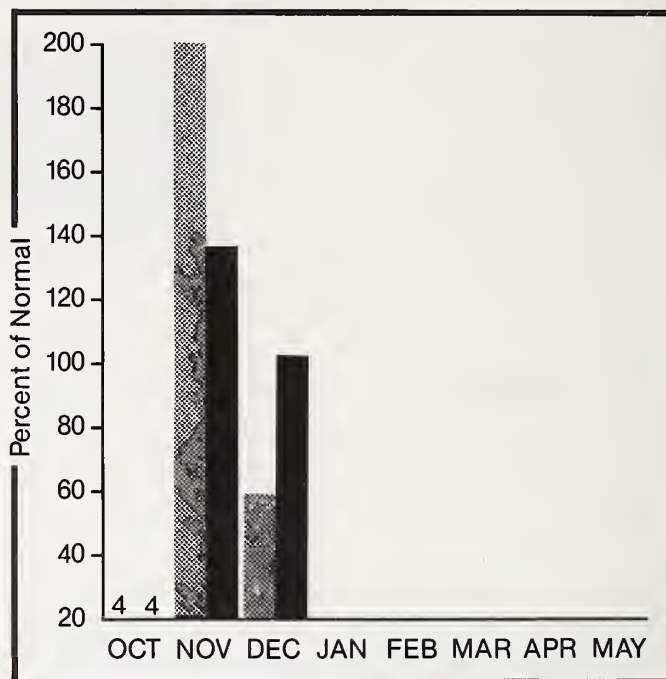
Mountain snowpack* (inches)





*Based on selected stations

Maximum  Average 
 Minimum  Current 

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snow measurements taken near January 1 indicate normal snowpack conditions throughout this basin for the first time since 1986, generally ranging from 90 to 109% of average. Higher elevation stations report slightly below normal snowpacks while lower elevations report slightly above to well above normal snow accumulation. The drought conditions that persisted through late summer and early fall have left soil profiles very dry. Most of the heavy precipitation received in November fell in the form of snow in the mountain areas and added little or no moisture to the soils. Near or above normal snow accumulation will be needed for the remainder of the season to provide normal spring and summer streamflows. Currently, April - September streamflow volumes are forecast to be 95 to 103% of average. Reservoir storage remains well below normal in the Boise basin with a combined storage of 50% of average and 30% of capacity.

WEISER, PAYETTE, AND BOISE RIVER BASIN

STREAMFLOW FORECASTS

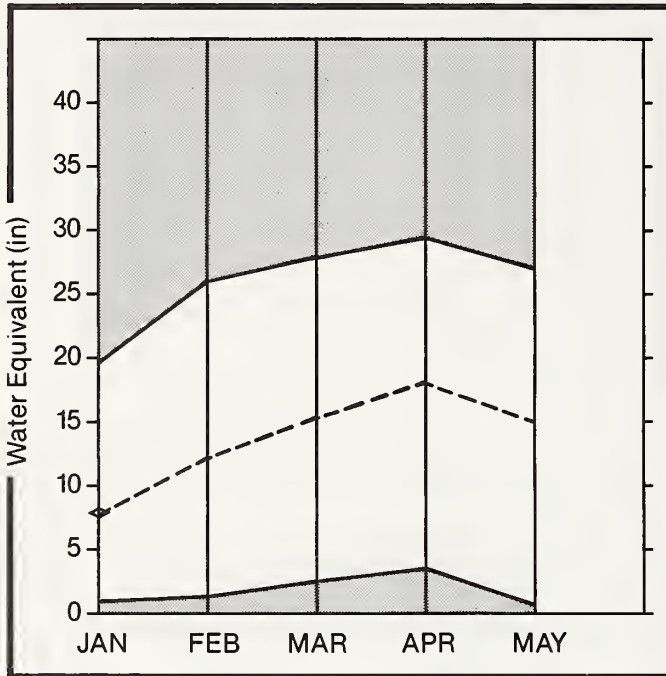
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
WEISER nr Weiser	APR-SEP	435	98			695	173	444
	APR-JUL	405	98			650	161	414
NF PAYETTE at Cascade (2)	APR-SEP	555	98	635	480	695	415	568
	APR-JUL	520	98	595	445	655	385	531
NF PAYETTE nr Banks (2)	APR-SEP	720	98	875	565	940	500	737
	APR-JUL	675	98	835	515	880	470	691
PAYETTE nr Horseshoe Bend	APR-SEP	1830	98	2170	1510	2390	1270	1862
	APR-JUL	1690	98	2020	1380	2210	1170	1717
SF PAYETTE at Lowman	APR-SEP	490	95	575	405	645	335	516
	APR-JUL	435	95	515	355	570	300	458
DEADWOOD RESERVOIR inflow	APR-JUL	140	98			191	90	143
BOISE nr Twin Springs (1)	APR-SEP	745	103	890	585	955	545	722
	APR-JUL	685	103	825	530	870	505	664
BOISE nr Boise (1)	APR-SEP	1630	100	2040	1220	2300	980	1628
	APR-JUL	1510	100	1920	1100	2130	905	1508
	APR-JUN	1330	100	1680	995	1880	810	1334
SF BOISE at Anderson Ranch Dam (1)	APR-SEP	635	103	790	480	820	450	619
	APR-JUL	595	103	740	450	770	415	578

RESERVOIR STORAGE					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			LAST YR.	AVERAGE
MANN CREEK	11.3	1.6	1.1	4.2	Mann Creek	1	286	129
CASCADE	703.2	394.4	356.5	419.7	Weiser River	4	215	106
DEADWOOD	162.0	54.7	60.0	73.7	North Fork Payette	10	195	92
ANDERSON RANCH	464.2	133.9	129.0	319.9	South Fork Payette	7	177	91
ARROWROCK	286.6	104.2	97.2	193.8	Payette River Total	16	183	90
LUCKY PEAK	307.0	52.4	72.9	94.5	Middle & North Fork Boise	9	172	95
LAKE LOWELL (DEER FLAT)	177.0	78.7	86.3	126.0	South Fork Boise River	9	190	108
					Boise River Total	18	215	109
					Canyon Creek	1	1180	184

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

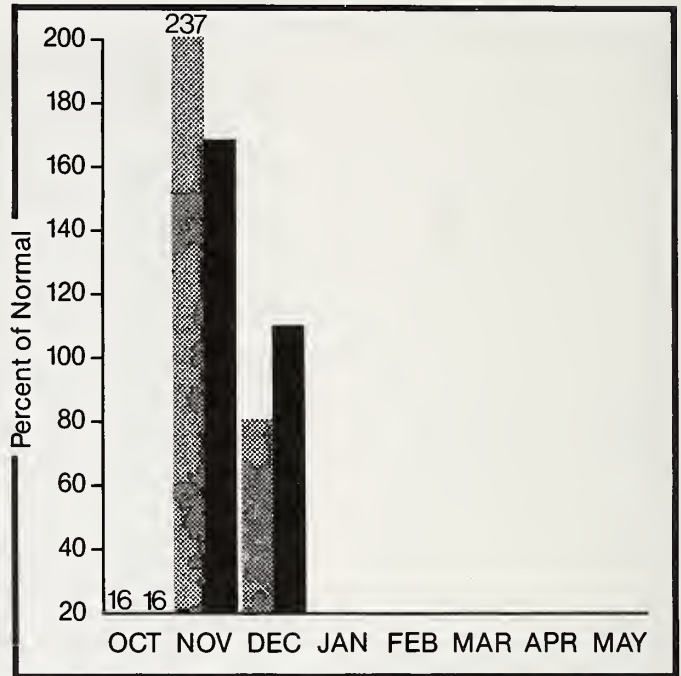
Big Wood, Little Wood, Big Lost, and Little Lost River Basin

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum Average
Minimum Current

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack conditions as of January 1 are near normal throughout the basin for the first time since 1986. Current snowpack conditions range from 94 to 104% of average on all drainages except the Camas Creek basin which reported 131% of normal snowpack. The higher elevation stations reported slightly below average snowpacks while the lower elevation stations show slightly above average snow accumulation. Mountain soil profiles are very dry and are expected to absorb above normal amounts of moisture when the spring melt begins. Most of the heavy precipitation received in November fell in the form of snow in the mountainous areas and added little moisture to the soils. Normal to above normal snow accumulation will be needed for the remainder of the season to provide normal spring and summer streamflows. Currently, April - September flows are forecast to be 95 to 100% of average. Reservoir storage is well below normal on all major reservoirs. Magic Reservoir reports the lowest volume with 19% of average and only 9% of capacity.

BIG WOOD, LITTLE WOOD, BIG LOST, AND LITTLE LOST RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
BIG WOOD nr Bellevue	APR-SEP APR-JUL	210 193	97 96	270 255	147 134	275 255	143 130	217 202
MAGIC RESERVOIR inflow	APR-SEP APR-JUL	335 320	99 99	420 395	250 235	510 485	159 153	338 322
LITTLE WOOD nr Carey	APR-SEP APR-JUL	107 99	100 100	137 128	77 70	144 134	70 64	107 99
BIG LOST at Howell Ranch nr Chilly	APR-SEP APR-JUL APR-JUN	215 190 147	98 99 99	260 230 174	180 155 122	305 265 205	127 113 88	219 192 148
BIG LOST bl Mackay Reservoir (2)	APR-SEP	188	96	235	153	265	112	195
LITTLE LOST bl Wet Ck.	APR-SEP APR-JUL	38 31	100 100	46 38	30 24	53 43	23 18.6	38 31
LITTLE LOST nr Howe	APR-SEP APR-JUL	42 32	95 97	49 37	37 28	60 45	24 18.8	44 33

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE ** THIS YEAR	LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE
MAGIC	191.5	17.2	10.1	89.0	Big Wood ab Magic	10	152 96
LITTLE WOOD	30.0	6.9	8.8	13.5	Camas Creek	4	284 131
CAREY VALLEY		NO REPORT			Big Wood Total	13	178 104
MACKAY	44.5	16.1	20.5	26.4	Little Wood River	4	167 104
					Fish Creek	0	0 0
					Big Lost River	4	140 94
					Little Lost River	4	136 101

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.

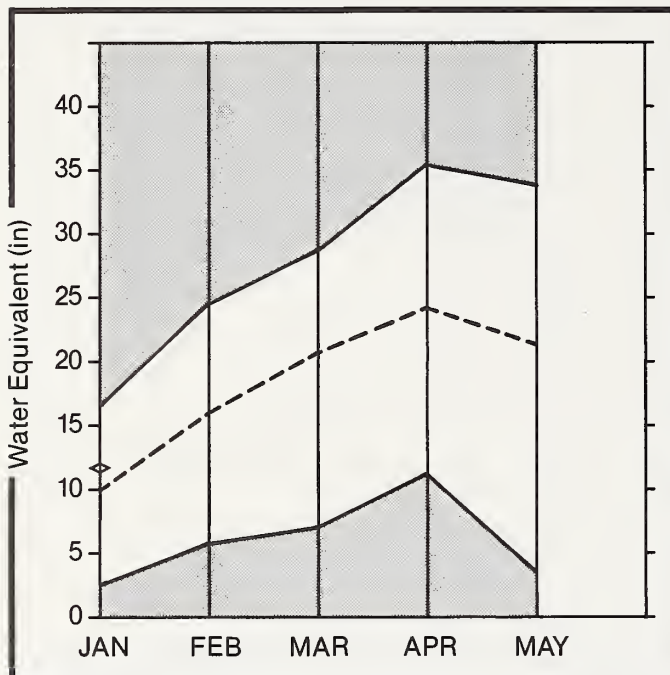
REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

(1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

(2) - Corrected for upstream diversions or changes in reservoir storage.

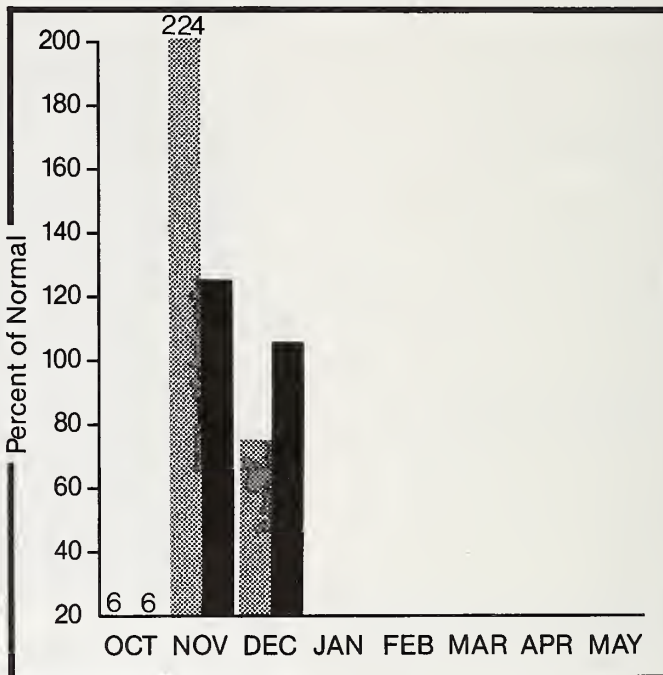
Willow Creek, Blackfoot, Upper Snake, and Portneuf River Basin

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum



Average



Minimum



Current



Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

Snow measurements taken near January 1 show snowpack conditions vary widely in the basin but are generally near or above average for January 1. Basin snowpacks range from 90% of normal on the Greys River to 153% on the Beaver-Camas Creek basin near Dubois. The exception is the Salt River basin which reports only 74% of normal snowpack. Mountain soil profiles are very dry and are expected to absorb above normal amounts of moisture when the spring melt begins. Most of the heavy precipitation received in November fell in the form of snow in the mountainous areas and added little moisture to the soil. Currently, April - September streamflows are forecast to be above average, ranging from 101% on the Falls River to 110% on the Snake nr Moran. Reservoir storage is below normal on all major reservoirs in the Upper Snake basin ranging from 46 to 86% of average (39-71% of capacity) with the exception of Jackson Lake which has only 17% of average storage and 14% of capacity.

WILLOW CREEK, BLACKFOOT, UPPER SNAKE, AND FORTNEUF RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
HENRYS FORK nr Ashton (2)	APR-SEP	790	106	880	700	895	685	746
	APR-JUL	590	106	680	500	670	510	557
HENRYS FORK nr Rexburg (2)	APR-SEP	1620	102	1880	1330	2030	1220	1595
	APR-JUL	1280	102	1520	1040	1610	965	1260
FALLS nr Squirrel	APR-JUL	375	101			470	280	373
TETON ab S Leigh Ck nr Driggs	APR-SEP	205	106	245	160	245	166	194
	APR-JUL	153	106	188	118	182	124	145
TETON nr St. Anthony	APR-SEP	490	102	535	450	570	395	479
	APR-JUL	395	102	435	355	465	320	387
SNAKE nr Moran (1)	APR-SEP	975	110	1120	840	1150	805	888
PALISADES RESERVOIR inflow (1)	APR-SEP	4130	107	4750	3550	5320	2940	3852
SNAKE nr Heise (2)	APR-SEP	4420	107	5290	3550	5700	3090	4142
	APR-JUL	3760	107	4610	2910	4850	2630	3524
SNAKE nr Blackfoot (2)	APR-SEP	5960	105	7210	4710	7660	4260	5680
	APR-JUL	4800	105	5860	3740	6220	3420	4589
FORTNEUF at Topaz	MAR-SEP	118	108	138	102	162	74	109
	MAR-JUL	95	108	112	79	130	60	88

RESERVOIR STORAGE

(1000AF)

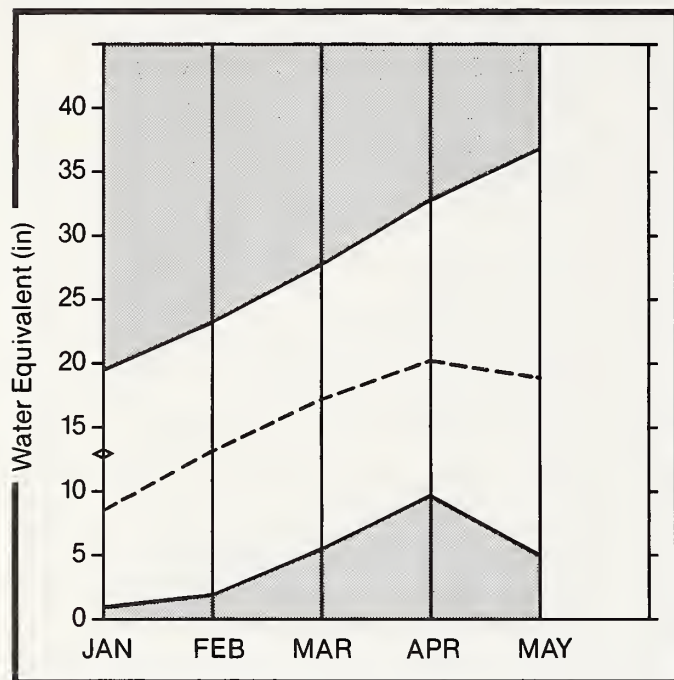
WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			LAST YR.	AVERAGE
ISLAND PARK	127.6	67.0	93.9	88.9	Camas-Beaver Creeks	4	255	153
GRASSY LAKE	15.2	8.2	8.5	10.4	Henrys Fork River	10	186	132
JACKSON LAKE	624.4	87.5	83.4	525.6	Teton River	7	178	111
PALISADES	1357.0	469.6	682.5	1013.1	SNAKE ab Palisades Res	18	146	108
AMERICAN FALLS	1700.0	664.2	829.0	1002.4	SNAKE ab Jackson Lake	9	155	123
BROWNLEE	975.3	893.2	738.9	825.8	Gros Ventre River	2	138	105
BLACKFOOT	348.7	136.4	235.3	230.6	Greys River	3	136	90
HENRY'S LAKE	90.4	64.0	75.0	74.0	Salt River	1	141	74
RIPIE	96.5	39.1	45.4	45.4	Willow Creek	10	245	138
					Blackfoot River	4	204	120
					Portneuf River	4	218	129
					Toponce Creek	0	0	0

WET SUBS. and DRY SUBS. represent 100 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 50 and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

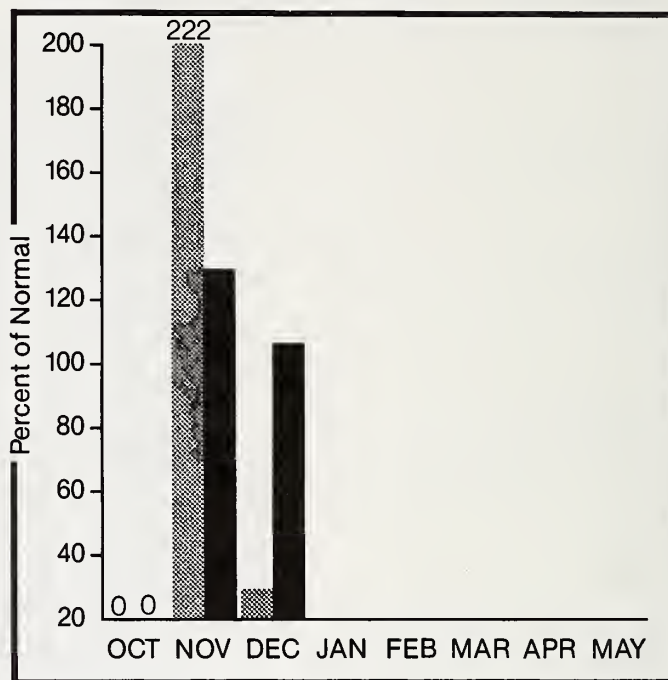
Southside Snake River Basin

Mountain snowpack* (inches)



*Based on selected stations

Precipitation* (percent of normal)



*Based on selected stations

Maximum Average
Minimum Current

Monthly precipitation

Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack conditions are well above normal throughout the basin for January 1, bringing an end to two years of below average conditions. Currently, snowpacks range from 136% of average on the Salmon Falls Creek drainage to 169% on the Owyhee basin. Soil moisture conditions, however, are very dry and soil profiles are expected to absorb above normal amounts of moisture when the spring melt begins. Most of the heavy precipitation received in November fell in the form of snow and added little moisture to the mountain soils. March - September and April - September streamflows are forecast to be slightly above normal, ranging from 113 to 124% of average. Current storage is very low in the major reservoirs in the basin ranging from only 15% of average (8% of capacity) in Owyhee Reservoir to 40% of average (10% of capacity) in Salmon Falls Creek Reservoir.

SOUTHSIDE SNAKE RIVER BASIN

STREAMFLOW FORECASTS

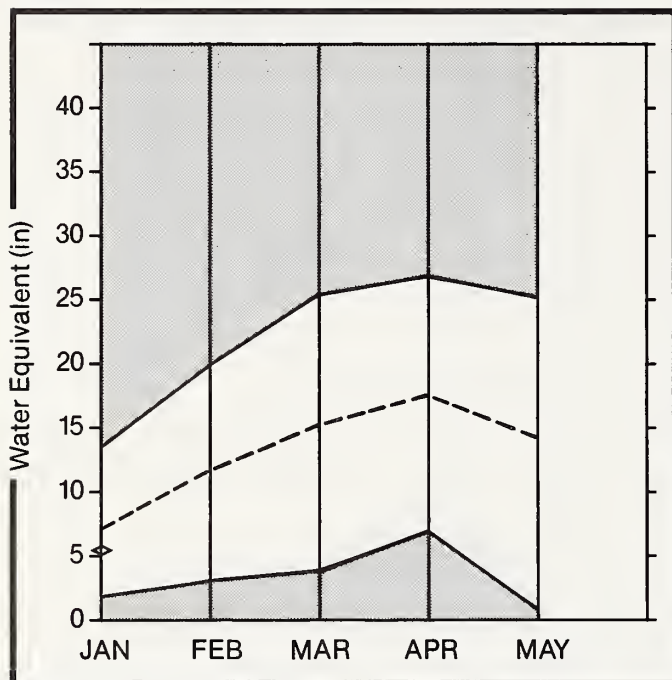
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
OAKLEY RESERVOIR inflow	APR-SEP	41	124	49	33	54	28	33
	APR-JUL	36	124	43	28	48	24	29
SALMON FALLS CK nr San Jacinto	MAR-SEP	117	115	147	86	157	77	102
	MAR-JUL	112	115	140	83	149	73	97
	MAR-JUN	105	115	130	79	140	69	91
BRUNEAU nr Hot Spring	MAR-SEP	295	113	355	235	405	186	260
	MAR-JUL	280	113	345	215	385	178	248
OWYHEE nr Gold Ck (2)	APR-JUL	33	118	44	23	49	17.9	28
OWYHEE nr Owyhee (2)	APR-JUL	100	116	137	63	163	37	86
OWYHEE nr Rome (2)	APR-JUL	445	120	510	370	640	250	371
OWYHEE RESERVOIR inflow (1)	APR-SEP	525	115	595	455	760	290	455
	APR-JUL	490	115	675	305	710	270	427

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE ** THIS YEAR	LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE
OAKLEY	77.4	8.0	7.3	23.7	Reft River	2	244 150
SALMON FALLS	182.6	17.8	33.6	44.9	Goose-Trapper Creeks	2	292 158
OWYHEE	715.0	58.8	166.8	394.6	Salmon Falls Creek	9	172 136
					Bruneau River	8	174 149
					Owyhee River	11	219 169

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
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Great Basin

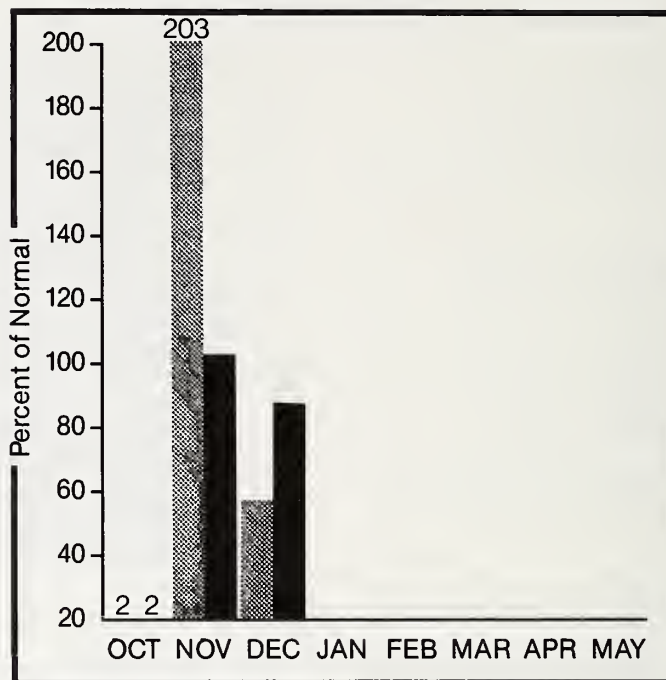
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack condition as of January 1 are near to slightly below normal throughout the basin ranging from 80% of average on the Montpelier Creek basin to 100% on the Cub River. Mountain soil profiles are much drier than normal and are expected to absorb above normal amounts of moisture when the spring melt begins. Near or above normal snow accumulation will be needed for the remainder of the winter to produce normal runoff volumes for the upcoming season. Currently, April - September streamflow volumes are forecast to be slightly below normal, ranging from 71 to 95% of average. Reservoir storage is below normal with Bear Lake reporting 80% of average (56% of capacity) and Montpelier Creek reporting 33% of average and only 18% of capacity.

GREAT BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOIST PROBABLE (1000AF)	MOIST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
BEAR RIVER near Harer	APR-SEP	220	71	300	127	395	118	310
MONTPELIER CK nr Montpelier	APR-SEP	12.0	86	15.3	8.4	18.3	5.7	13.9
CUB RIVER near Preston	APR-SEP	49	95	58	39	70	28	52
	APR-JUL	44	94	52	36	60	28	47

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS		
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE
		THIS YEAR	LAST YEAR	AVG.			
BEAR LAKE	1421.0	797.5	1001.0	992.6	Bear River (above Harer)	9	144 88
MONTPELIER CREEK	4.0	0.6	1.1	1.8	Montpelier Creek	7	135 80
					Mink Creek	1	133 90
					Cub River	3	178 100
					Malad River	0	0 0

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
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SNOW DATA MEASUREMENTS

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
UPPER COLUMBIA BASIN							CLEARWATER BASIN						
WATERSHED I							WATERSHED III						
ABOVE BURKE	4100	12/28/88	---	6.7E	3.2	8.4	CAYUSE AIRSTRIP	3500	12/27/88	19	4.5	2.8	5.5
ABOVE ROLAND	4350	12/28/88	---	9.0E	6.2	12.9	COOL CREEK	6250	12/27/88	64	17.9	10.5	24.0
BEAR MOUNTAIN	5400	12/30/88	---	19.8E	15.4	27.5	COOL CREEK PILLOW	6280	1/01/89	---	19.9	10.4	22.4
BEAR MTN PILLOW	5400	1/01/89	---	20.1	15.6	28.2	CRATER MEADOWS	5960	12/27/88	57	16.1	8.2	19.1
BENTON MEADOW	2370	12/29/88	11	1.5	1.0	3.0	CRATER MDWS PILLOW	5960	1/01/89	---	19.1	9.1	19.7
BENTON SPRING	4920	12/29/88	29	6.3	5.1	8.6	CROOKED FORK	3610	1/03/89	32	6.2	4.2	5.2
BREEZY SADDLE	5010	12/27/88	43	10.5	7.1	12.2	ELK BUTTE	5550	1/03/89	66	16.0	5.8	15.6
COPPER RIDGE	4820	12/30/88	---	8.8E	5.3	10.5	ELK BUTTE PILLOW	5550	1/01/89	---	16.1	6.9	17.6
FORTY-NINE MEADOWS	4830	12/27/88	---	10.9E	7.1	12.8	FISH LAKE AIRSTRIP	5650	12/27/88	56	14.8	10.2	17.3
FOURTH OF JULY SUM	3200	12/28/88	15	2.8	2.7	3.7	FORTY-NINE MEADOWS	4830	12/27/88	---	10.9E	7.1	12.8
HUMBOLDT GULCH	4250	12/28/88	22	4.2	2.8	6.4	HEMLOCK BUTTE	5810	12/27/88	59	15.5	8.5	21.4
HUMBOLDT GLCH PILLOW	4250	1/01/89	---	5.3	---	5.4	HEMLOCK BUTTE PILLOW	5810	1/01/89	---	20.0	8.2	19.5
LOOKOUT	5140	12/28/88	38	9.9	7.6	14.5	LOLO PASS	5240	1/03/89	43	10.0	6.6	11.9
LOOKOUT PILLOW	5140	1/01/89	---	11.5	7.1	14.6	LOST LAKE	6110	12/27/88	66	18.9	11.1	25.2
LOST LAKE	6110	12/27/88	66	18.9	11.1	25.2	LOST LAKE PILLOW	6110	1/01/89	---	22.9	12.7	29.5
LOST LAKE PILLOW	6110	1/01/89	---	22.9	12.7	29.5	MEADOW LAKE	9150	12/30/88	---	6.0E	5.2	8.5
LOWER SANDS CREEK	3120	12/28/88	---	5.7E	3.3	7.6	MOUNTAIN MEADOWS	6360	12/30/88	---	7.4E	4.8	11.0
MOSQUITO RIDGE	5200	12/30/88	---	13.2E	9.9	17.1	MOUNTAIN MDWS PILLOW	6360	1/01/89	---	8.5	5.6	12.6
MOSQUITO PILLOW	5200	1/01/89	---	14.3	9.3	17.0	PIERCE R.S.	3080	1/03/89	28	5.2	2.0	4.5
ROLAND SUMMIT	5120	12/28/88	---	12.4E	8.5	16.8	SAVAGE PASS	6170	1/03/89	45	10.4	8.0	11.3
SCHWEITZER BASIN	6090	12/30/88	---	19.5E	17.6	22.7	SAVAGE PASS PILLOW	6170	1/01/89	---	11.0	8.2	11.2
SCHWEITZER SN PILLOW	6090	1/01/89	---	22.4	12.8	23.8	SHANGHAI SUMMIT	4570	12/27/88	41	10.4	3.7	11.0
SCHWEITZER BOWL	4800	12/30/88	---	12.4E	9.9	13.8	SHANGHAI SUM PILLOW	4570	1/01/89	---	13.3	4.0	12.4
SCHWEITZER RIDGE	6200	12/30/88	---	18.5E	15.7	21.3	SHERWIN	3200	1/02/89	37	7.2	2.6	5.6
SHERWIN	3200	1/02/89	37	7.2	2.6	5.6	SHERWIN PILLOW	3200	1/01/89	---	6.1	2.2	5.5
SHERWIN PILLOW	3200	1/01/89	---	6.1	2.2	5.5							
SUNSET	5540	12/30/88	---	10.1E	5.3	14.7							
SUNSET PILLOW	5540	1/01/89	---	12.3	5.4	16.1							
SALMON BASIN							WEISER, PAYETTE, AND BOISE BASINS						
WATERSHED II							WATERSHED IV						
BANNER SUMMIT	7040	12/30/88	---	12.4E	8.4	14.4	ATLANTA SUMMIT	7600	12/28/88	58	15.2	9.8	15.5
BANNER SUMMIT PILLOW	7040	1/01/89	---	11.1	7.5	12.6	ATLANTA SUM PILLOW	7580	1/01/89	---	14.4	9.5	13.3
BEAR BASIN	5350	12/30/88	---	9.0E	2.0	8.3	ATLANTA TOWNSITE	5370	12/28/88	21	3.7	2.0	---
BEAR BASIN PILLOW	5350	1/01/89	---	10.1	1.6	8.1	BANNER SUMMIT	7040	12/30/88	---	12.4E	8.4	14.4
BIG CREEK SUMMIT	6580	12/30/88	---	14.4E	9.6	15.4	BANNER SUMMIT PILLOW	7040	1/01/89	---	11.1	7.5	12.6
BIG CREEK SUM PILLOW	6580	1/01/89	---	13.7	8.2	13.2	BAD BEAR	4940	12/28/88	29	6.4	1.9	5.7
BOULDER CREEK	5440	12/31/88	---	9.5E	5.0	10.0	BEAR BASIN	5350	12/30/88	---	9.0E	2.0	8.3
BREEZY SADDLE	5010	12/27/88	43	10.5	7.1	12.2	BEAR BASIN PILLOW	5350	1/01/89	---	10.1	1.6	8.1
BRUNDAGE MOUNTAIN	7560	12/30/88	---	16.1E	11.0	20.8	BEAR SADDLE	6180	12/30/88	---	16.0E	5.6	12.4
BRUNO CREEK	7920	1/03/89	31	7.1	6.0	9.1	BEAR SADDLE PILLOW	6180	1/01/89	---	16.3	6.8	12.6
DEADWOOD SUMMIT	6860	12/28/88	61	16.7	12.4	21.2	BIG CREEK SUMMIT	6580	12/30/88	---	14.4E	9.6	15.4
DEADWOOD SUM PILLOW	6860	1/01/89	---	16.4	12.1	23.0	BIG CREEK SUM PILLOW	6580	1/01/89	---	13.7	8.2	13.2
GALENA SUMMIT	8780	12/27/88	37	9.3	6.5	11.0	BOGUS BASIN	6340	12/29/88	50	13.2	3.5	9.9
GALENA SUMMIT PILLOW	8780	1/01/89	---	8.4	6.7	8.9	BOGUS BASIN ROAD	5540	12/29/88	27	6.7	.2	3.1
GIBBONS PASS	7100	12/30/88	35	9.4	5.9	9.7	BOULDER CREEK	5440	12/31/88	---	9.5E	5.0	10.0
MEADOW LAKE	9150	12/30/88	---	6.0E	5.2	8.5	BRUNDAGE MOUNTAIN	7560	12/30/88	---	16.1E	11.0	20.8
MEADOW LAKE PILLOW	9150	1/01/89	---	6.6	5.1	8.7	BRUNDAGE RESV PILLOW	4500	1/01/89	---	10.4	5.8	---
MILL CREEK SUMMIT	8800	12/30/88	---	7.6E	6.3	10.8	CAMAS CREEK DIVIDE	5710	12/31/88	38	8.6	3.6	---
MILL CREEK ST PILLOW	8800	1/01/89	---	7.5	5.9	10.4	CHIMNEY CREEK	6400	12/31/88	37	9.0	3.3	7.5
MOONSHINE	7440	12/28/88	22	4.9	3.2	4.8	COUCH SUMMIT	6840	12/31/88	---	10.0E	4.4	8.0
MOONSHINE PILLOW	7440	1/01/89	---	5.3	3.8	4.6	COZY COVE	5380	12/28/88	26	5.2	3.5	7.2
MOOSE CREEK	6200	1/01/89	32	7.2	4.4	7.4	COZY COVE PILLOW	5380	1/01/89	---	6.6	---	---
MOOSE CR PILLOW	6200	1/01/89	---	7.5	4.7	7.6	CRAWFORD R.S.	4860	12/27/88	24	4.6	1.0	3.1
MORGAN CREEK	7600	12/30/88	---	4.8E	4.2	6.2	DEADMAN GULCH	5600	12/28/88	41	10.1	3.2	7.7
MORGAN CREEK PILLOW	7600	1/01/89	---	3.9	4.1	5.8	DEADWOOD AIRSTRIP	5360	12/30/88	---	5.5E	3.7	7.0
ROCK FLAT SUMMIT	5310	12/30/88	---	8.7E	2.0	7.6	DEADWOOD SUMMIT	6860	12/28/88	61	16.7	12.4	21.2
SADDLE MOUNTAIN	7940	12/30/88	37	10.3	6.4	11.0	DEADWOOD SUM PILLOW	6860	1/01/89	---	16.4	12.1	23.0
SECESH SUMMIT	6520	12/27/88	47	12.7	8.3	15.5	DOLLARHIDE SUMMIT	8420	12/28/88	45	11.3	6.5	11.5
SECESH SUMMIT PILLOW	6520	1/01/89	---	12.7	8.1	15.6	DOLLARHIDE SM PILLOW	8420	1/01/89	---	12.8	6.6	11.6
SQUAW MEADOW	5900	12/27/88	46	11.8	8.0	15.8	GRAHAM GUARD STATION	5690	12/28/88	26	5.5	3.2	7.1
VIENNA MINE	8860	12/28/88	50	13.6	10.6	15.9	GRAHAM G.S. PILLOW	5690	1/01/89	---	6.2	2.0	7.8
VIENNA MINE PILLOW	8860	1/01/89	---	13.4	10.0	15.9	IDAHO CITY TOWNSITE	4000	12/28/88	18	3.9	1.1	2.7
WEBB CREEK	4720	12/27/88	18	4.5	---	5.0	JACKSON PEAK	7070	12/28/88	46	11.9	7.6	14.6
WEST BRANCH	5560	12/31/88	45	10.5	4.8	11.2	JACKSON PEAK PILLOW	7070	1/01/89	---	12.6	6.9	12.9
WEST BRANCH PILLOW	5560	1/01/89	---	11.5	5.3	11.0	LAKE FORK	5290	12/27/88	28	5.9	1.5	7.1
							LITTLE CAMAS FLAT	4940	12/31/88	26	5.9	.5	3.2
							MOORES CREEK SUMMIT	6100	12/28/88	53	14.1	7.1	13.9
							MOORES CK SUM PILLOW	6100	1/01/89	---	14.5	7.4	14.4
							PRAIRIE	4800	12/29/88	25	5.0	.7	3.0
							PRAIRIE PILLOW	4800	1/01/89	---	3.0	.7	---
							ROAD CREEK	5380	12/28/88	19	3.6	1.4	4.3
							ROCK FLAT SUMMIT	5310	12/30/88	---	8.7E	2.0	7.6
							SECESH SUMMIT	6520	12/27/88	47	12.7	8.3	15.5
							SECESH SUMMIT PILLOW	6520	1/01/89	---	12.7	8.1	15.6
							SOLDIER R.S.	5740	12/31/88	37	6.9	3.0	5.5
							SOLDIER R.S. PILLOW	4330	1/01/89	---	8.5	3.1	---
							SQUAW FLAT	6240	12/30/88	---	10.2E	6.1	9.9
							SQUAW FLAT PILLOW	6240	1/01/89	---	9.7	4.9	8.4
							SQUAW MEADOW	5900	12/27/88	46	11.8	8.0	15.8
							TRINITY MOUNTAIN	7770	12/28/88	74	20.3	12.4	19.6
							TRINITY MTN. PILLOW	7770	1/01/89	---	20.0	12.2	19.0
							TRIPOD SUMMIT	5260	12/27/88	45	9.4E	3.2	8.0
							VIENNA MINE	8860	12/28/88	50	13.6	10.6	15.9
							VIENNA MINE PILLOW	8860	1/01/89	---	13.4	10.0	15.9
							WEST BRANCH	5560	12/31/88	45	10.5	4.8	11.2
							WEST BRANCH PILLOW	5560	1/01/89	---	11.5	5.3	11.0

SNOW DATA MEASUREMENTS (cont.)

SNOW CDURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW CDURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
BIG WODO, LITTLE WOOD, BIG LDST, AND LITTLE LOST BASINS							SDUTHSIDE SNAKE BASIN						
WATERSHED V							WATERSHED VII						
BEAR CANYON	7900	12/30/88	---	7.8E	6.6	8.3	ANTELOPE RIDGE	6180	12/31/88	24	6.3	1.0	---
BEAR CANYON PILLDW	7900	1/01/89	---	7.2	5.5	7.8	BADGER CULCH	6660	12/30/88	---	8.4E	2.4	4.8
CAMAS CREEK DIVIDE	5710	12/31/88	38	8.6	3.6	---	BEAR CREEK	7800	12/30/88	---	12.6E	6.5	8.9
CHIMNEY CREEK	6400	12/31/88	37	9.0	3.3	7.5	BEAR CK SNOTEL	7800	1/01/89	---	11.8	---	7.9
CDPPER BASIN	7640	12/30/88	---	3.1E	1.6	3.3	BOSTETTER R.S.	7500	12/30/88	---	14.1E	5.3	9.4
COUCH SUMMIT	6840	12/31/88	---	10.0E	4.4	8.0	BOSTETTER RS PILLDW	7500	1/01/89	---	12.3	7.3	7.6
DOLLARHIDE SUMMIT	8420	12/28/88	45	11.3	6.5	11.5	CLEAR CREEK MEADWS	9420	12/30/88	---	14.7E	6.1	9.5
OOLLARHIDE SM PILLDW	8420	1/01/89	---	12.8	6.6	11.6	DEADLINE	7400	12/29/88	31	9.5	5.7	9.4
GALENA	7440	12/30/88	---	8.2E	4.8	8.4	DEADLINE SDUTH	7450	12/29/88	36	11.6	6.0	10.7
GALENA PILLDW	7440	1/01/89	---	7.9	6.0	8.3	GOAT CREEK	8800	12/30/88	---	11.6E	6.9	7.4
GALENA NEW	7470	12/27/88	38	8.8	5.2	8.8	HOWELL CANYON	7980	12/30/88	---	17.0E	6.9	11.6
GALENA SUMMIT	8780	12/27/88	37	9.3	6.5	11.0	HUMMINGBIRD SPRINGS	7980	1/01/89	---	14.9	4.9	9.5
GALENA SUMMIT PILLDW	8780	1/01/89	---	8.4	6.7	8.9	LANGFORD FLAT CREEK	8850	12/30/88	---	15.9E	11.2	10.3
GARFIELD R.S.	6560	12/28/88	28	5.2	1.9	4.5	MAGIC MOUNTAIN	5980	12/29/88	21	4.3	2.2	2.6
GARFIELD R.S. PILLDW	6560	1/01/89	---	5.5	2.6	4.2	MAGIC MTN PILLDW	6880	12/29/88	42	11.1	4.9	8.2
GRAHAM RANCH	6270	12/27/88	34	6.9	2.4	6.0	MUD FLAT	6880	1/01/89	---	13.2	5.3	8.2
HILTS CREEK	8000	12/29/88	24	5.2	4.0	5.4	MUD FLAT PILLDW	5730	12/31/88	28	6.2	.8	3.1
HILTS CREEK PILLDW	8000	1/01/89	---	6.5	5.4	6.3	MUO FLAT	5730	1/01/89	---	5.6	1.6	2.3
HYNDMAN CREEK	7440	12/30/88	---	6.9E	5.1	6.8	PDLE CREEK R.S.	8330	12/30/88	---	12.9E	8.9	8.6
HYNDMAN PILLDW	7440	1/01/89	---	5.7	4.6	5.4	SEVENTYSIX CK SNDTEL	7100	1/01/89	---	6.4S	2.5	6.1
LITTLE CAMAS FLAT	4940	12/31/88	26	5.9	.5	3.2	SHDSHONE BASIN	5810	12/29/88	---	4.5E	2.3	3.0
LOST-WODD DIVIOE	7900	12/30/88	---	9.3E	7.1	10.1	SOUTH MOUNTAIN	6500	12/29/88	46	13.1	3.1	6.3
LOST-WODD DVD PILLDW	7900	1/01/89	---	10.1	7.2	10.1	SDUTH MTN PILLDW	6500	1/01/89	---	16.5	3.8	5.5
MASCDT MINE	7780	12/30/88	---	6.0E	5.0	7.0							
MOONSHINE	7440	12/28/88	22	4.9	3.2	4.8							
MDDNSHINE PILLDW	7440	1/01/89	---	5.3	3.8	4.6							
MDUNT BALDY	8820	12/30/88	44	10.3	6.4	9.3							
MULDODN	6320	12/28/88	21	3.8	1.9	3.4							
SAWMILL CANYDN	7000	12/28/88	19	3.6	3.4	3.8							
SDLDIER R.S.	5740	12/31/88	37	6.9	3.0	5.5							
SOLDIER R.S. PILLDW	4330	1/01/89	---	8.5	3.1	---							
STICKNEY MILL	7430	12/30/88	---	4.0E	2.0	4.1							
STICKNEY MILL PILLDW	7430	1/01/89	---	3.6	1.7	3.6							
SWEDE PEAK	7640	12/28/88	39	8.4	4.7	8.1							
SWEDE PEAK PILLDW	7640	1/01/89	---	8.9	4.7	6.4							
VIENNA MINE	8860	12/28/88	50	13.6	10.6	15.9							
VIENNA MINE PILLDW	8860	1/01/89	---	13.4	10.0	15.9							
WET CREEK SUMMIT	7680	12/29/88	24	5.4	3.4	4.9							
WILLDO, BLACKFOOT, UPPER SNAKE, AND PDRTNEUF BASINS							GREAT BASIN						
WATERSHED VI							WATERSHED VIII						
ASPEN CRDVE	6500	12/29/88	---	6.9E	3.0	---	CUB RIVER R.S.	5450	12/27/88	27	4.5	2.3	4.1
BIG SPRINGS	6400	12/29/88	40	10.5	4.9	8.3	EMIGRANT SUMMIT	7390	12/29/88	43	9.2	6.9	10.2
BIRCH CREEK	6800	12/28/88	27	5.9	2.3	4.0	EMIGRANT SUM PILLDW	7390	1/01/89	---	8.7	6.6	11.3
BLACK BEAR	7950	12/28/88	65	20.2	13.4	17.6	FRANKLIN BASIN	8020	12/27/88	45	9.4	5.4	10.2
BLUE LEDGE MINE	6900	12/30/88	---	12.2E	5.9	8.1	FRANKLIN BSN PILLDW	8040	1/01/89	50	11.4	6.5	11.4
BLUE RIDGE	6780	12/28/88	44	10.8	4.1	7.3	GIVEOUT	6860	12/30/88	---	4.0E	3.0	5.2
8ONE	6200	12/28/88	25	4.9	1.5	2.8	GIVEOUT PILLDW	6840	1/01/89	---	4.4	3.1	5.0
BROCKMAN STATION	6430	12/28/88	27	6.1	2.7	4.2	GIVEOUT NEW	6930	12/30/88	---	3.5E	2.7	4.4
CAMP CREEK	6580	12/27/88	36	8.0	2.0	4.4	LITTLE BEAVER	6790	12/30/88	---	5.1E	3.7	6.1
CRAB CREEK	6860	12/30/88	---	11.4E	4.5	7.5	LDWER HDME CANYON	7640	12/30/88	---	4.4E	3.4	5.7
CRAB CREEK PILLDW	6860	1/01/89	---	12.5	4.8	7.9	MDNTEPLER CREEK	6540	12/30/88	---	3.1E	2.0	3.5
FALL CREEK	6820	12/28/88	28	5.7	1.2	3.9	OXFORD MOUNTAIN	6800	12/30/88	---	4.5E	3.1	---
GRASSY LAKE	7270	1/03/89	80	19.5	11.6	15.1	OXFORD SPRING	6740	12/30/88	---	4.8E	---	4.1
GRASSY LAKE PILLDW	7270	1/01/89	---	16.0	10.3	15.8	OXFORD SPRING PILLDW	6740	1/01/89	---	5.8	3.2	4.3
INDIAN MEADWS	9420	12/28/88	64	17.3	12.8	15.4	STRAWBERRY CREEK	5820	12/29/88	---	9.2E	---	---
ISLAND PARK	6290	12/29/88	41	8.8	4.7	6.8	UPPER HDME CANYDN	8560	12/30/88	---	7.2E	5.4	9.2
ISLAND PARK PILLDW	6290	1/01/89	---	10.7	5.1	6.6	WILLOW FLAT	6070	12/27/88	34	7.3	4.2	6.9
JACKPINE CREEK	7350	12/28/88	39	10.0	6.8	---							
KILGORE	6320	12/27/88	30	6.1	2.4	4.7							
LAVA CREEK	7350	12/28/88	37	8.9	3.4	6.5							
LDWER PEBBLE	5780	12/30/88	---	6.5E	3.4	5.3							
MADISON PLATEAU	7750	12/28/88	44	11.9	7.5	9.3							
MC RENOLDS RESERVDIR	6720	12/28/88	35	8.1	4.3	8.0							
MINK CREEK	6410	12/30/88	---	9.8	4.6	8.5							
MUD CREEK	7100	12/28/88	54	12.7	4.9	7.9							
NDRTH PUTNAM	7240	12/30/88	52	13.7	---	---							
PACKSADDLE SPRING	8200	12/28/88	57	15.8	7.2	12.4							
PEBBLE CREEK	6550	12/30/88	---	8.2E	---	7.3							
PHILLIPS BENCH	8200	12/30/88	---	15.4E	8.6	14.8							
PHILLIPS BENCH PILL.	8200	1/01/89	---	14.3	7.7	13.0							
PINE CREEK PASS	6810	1/03/89	43	8.0	3.1	7.2							
SAWTELL MOUNTAIN	8720	12/29/88	72	20.8	11.5	14.6							
SHEEP MOUNTAIN	6570	12/28/88	30	6.5	3.0	4.9							
SHEEP MTN PILLDW	6570	1/01/89	---	8.4	3.6	5.8							
SLUG CREEK DIVIDE	7230	12/30/88	---	5.4E	4.0	6.9							
SLUG CK DVD PILLDW	7230	1/01/89	---	5.7	4.3	8.0							
SDHSEN RANCH	6840	12/30/88	---	5.3E	3.9	6.3							
SDHSEN RANCH PILLDW	6800	1/01/89	---	5.1	3.7	5.1							
STATE LINE	6660	1/03/89	32	7.7	3.3	6.2							
TARGHEE PASS	6980	12/30/88	---	8.8E	2.7	6.2							
TEX CREEK	6650	12/30/88	---	6.1E	2.8	5.0							
TWITCHELL CANYON	6300	12/30/88	41	10.3	3.6	5.9							
VALLEY VIEW	6680	12/29/88	39	9.7	2.9	6.4							
WHISKEY CREEK	6800	12/28/88	41	10.3	5.1	7.7							
WHITE ELEPHANT	7710	12/29/88	51	14.1	8.2	10.1							
WHITE ELEPHANT PILL	7710	1/01/89	---	16.5	8.6	11.2							
WILDHORSE DIVIOE	6490	12/30/88	---	9.0E	4.7	7.8							
WILDHORSE OVO PILLDW	6490	1/01/89	---	9.3	4.1	6.6							

The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

State

Idaho Department of Water Resources
Soil and Water Conservation Districts of Idaho

Federal

U.S. Department of Agriculture
Forest Service
U.S. Department of Army
Corps of Engineers
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of Interior
Bureau of Reclamation
Geological Survey, Water Resources Division
Shoshone-Bannock Tribal Council

Local

Big Lost River Irrigation District
Big Wood Irrigation Company
Boise Project Board of Control
Idaho Water District #01
Lewiston Orchards Irrigation District
Little Wood River Irrigation District
North Board of Control — Owyhee Project
Salmon Falls Irrigation Company
South Board of Control — Owyhee Project

Private

Cyprus Mining Company
FMC Corporation
Idaho Power Company
Le Bois Resort
Washington Water Power Company

Other organizations and individuals furnish information for the snow survey reports. Their cooperation is gratefully acknowledged.

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